



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

April 15, 2009

Lee R. Brown US Magnesium LLC 238 North 2200 West Salt Lake City, UT 84116-2921

Subject: First Review of Notice of Intention to Commence Large Mining Operations, US

Magnesium LLC, Rowley/Stansbury Mine, M0450008, Tooele County, Utah

Dear Mr. Brown:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the Rowley/Stansbury Mine, located in Tooele County, Utah, which was received October 22, 2008. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using **redline and strikeout** text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

As you respond to the comments in this review, the Division will likely have deficiencies relating to those responses.

This review contains two major issues. These relate to the amount of reclamation on the dikes and to the definitions of primary and secondary processing. We would like to discuss these issues with you and ask that you call me or Leslie Heppler at one of the numbers listed below to schedule a meeting. We feel a discussion of these issues would be more beneficial than a series of reviews and responses while we still have fundamental disagreements.



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The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at (801) 538-5261, or Leslie Heppler at (801) 538-5257. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker

Minerals Program Manager

FIRST REVIEW OF NOTICEOF INTENTION TO COMMENCE LARGE MINING OPERATIONS

US Magnesium LLC Rowley/Stansbury Mine

M0450008 April 15, 2009

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	General	Submittal should be formatted to easily incorporate additional revisions and amendments.	lah	
2	All	The Division suggests that the plan be organized and labeled according to the R647 rules, i.e. instead of section 3.0 label section as R647-4-104.	lah	

R647-4-104 - Operator's, Surface and Mineral Ownership

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
4	Page 7	Include the responsible party in Operator info, the Corporate Officer(s) that will sign all documents.	lah	
5	Omission	Include the name, permanent mailing address and phone number of all surface and mineral landowners to be affected.	lah	

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
6	All	Rowley is a large operation, multiple maps are needed to detail information at a scale that is practical for the intent of the requirement.	lah	

FIRST REVIEW OF NOTICEOF INTENTION TO COMMENCE LARGE MINING OPERATIONS

US Magnesium LLC Rowley/Stansbury Mine

M0450008 April 15, 2009

General Comments:

1 General Submittal should be formatted to easily incorporate additional revisions and amendments. 2 All The Division suggests that the plan be organized and labeled according to the R647 rules, i.e. instead of section 3.0 label section as R647-4-104.	Comm ent #	Sheet/Pag e/ Map/Tabl e #	Comments	Initials	Revie w Actio
2 All The Division suggests that the plan be organized and labeled according to the R647 rules, i.e. instead of section 3.0 label section as R647-4-104.	1	General	Submittal should be formatted to easily incorporate additional revisions and amendments.	lah	
	2	All	The Division suggests that the plan be organized and labeled according to the R647 rules, i.e. instead of section 3.0 label section as R647-4-104.	lah	

R647-4-104 - Operator's, Surface and Mineral Ownership

Comm ent#	Sheet/Pag e/ Map/Tabl e #	Comments	Initials	Review Action
4	Page 7	Include the responsible party in Operator info, the Corporate Officer(s) that will sign all documents.	lah	
5	Omission	Include the name, permanent mailing address and phone number of all surface and mineral landowners to be affected.	lah	

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Pag e/ Map/Tabl e #	Comments	Initials	Review Action
6	All	Rowley is a large operation, multiple maps are needed to detail information at a scale that is practical for the intent of the requirement.	lah	

Specific Map Comments

105.1 Topographic base map, boundaries, pre-act disturbance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Fig 4.1	Green highlighter line on the map is not labeled on the legend.	lah	
8	Omission	Property boundaries of surface ownership of all land affective map is missing.		
9	Omission	Utilities are not shown on the Figure 1.4 as listed in text on page 9.	lah	

105.2 Surface facilities map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
10		Not all facilities for the site have been included. The USGS map does not match figure 4.2, 4.3, and 4.4. As per 105.3.12—"a border clearly outlining the acreage."	lah	

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
11	Omission	"Show any regraded slopes steeper than 2H:1H" as per 105.3.11	lah	
12	Omission	"Cross section of roads or other earthen structures" as per 105.3.12. This would include cross sections of the dikes.	lah	
13	Omission	"water impounding structuresgreater than 20 acres" as per 105.3.13	lah	
14	Omission	"area which will be disturbed but not reclaimed" as per 105.3.14	lah	· · · · · · · · · · · · · · · · · · ·
15	Omission	"actual solar ponds are shown, and defined on figure 4.2 and 4.3, but other hydrology structures are not defined for the rest of the operation.	lah	
16	Omission	No baseline studies have been included as per 105.3.16	lah	
17	Omission	As per 105.3.17 not enough information has been submitted to demonstrate that existing plan will result in a post mining use that is compatible with the state lease.	lah	· · · · · · · · · · · · · · · · · · ·
18	Omission	As per 105.3.17 drawings to be utilized for adequate bonding and reclamation practice. Must include estimated acreages	lah	
19	General	Depending upon the quality of information submitted, additional comments could be forth coming.	lah	

105.4 Photographs

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
20	General	More photographs are recommended by OGM, but not required.	lah	

R647-4-106 - Operation Plan

General Operation Comments

106.1 Estimated acreages disturbed, reclaimed, annually

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
21		Include an estimate on the details of reclamation that can be included, give an explanation on those details that cannot be included. At a minimum include the duration of reclamation.	lah	

R647-4-109 - Impact Assessment

109.1 Impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
22	Omission	No impacts have been noted in your Processing areas.	lah	
23		Attachment 2 has not been signed by and stamped by a PE. This is a requirement of the Clean Water Act and not the Division.	lah	

109.3 Impacts on existing soils resources

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
24	Omission	No impacts have been noted in the processing areas	lah	

109.4 Slope stability, erosion control, air quality, safety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
25	j	No Air Quality impacts have been noted in text relating to USM processing facilities, including the smokestack.	lah	

109.5 Actions to mitigate any impacts

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
26	Omission	No actions listed, for the above possible impacts	lah	

R647-4-110 - Reclamation Plan

110.1 Current & post mining land use

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
27	Page 16	An acceptable post mine use is has NOT been provided, all other leases from FSSL include the post mining use to be returned to the natural environment, as is reasonably practical.	lah	

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
28	Page 16 Figure 4.2- 4.3	More reclamation is needed than is shown on the figures. Due to the unique geographic location on the Great Salt Lake, wave action alone will not reclaim the dikes and pond.	lah	·
29	Figure 4.4	No detail is included on the reclamation of the Star pond. Elsewhere the star pond is named "the holding pond." Please use consistent terminology.	lah	
30	Page 17 6.2.2	How will the other canals be reclaimed?	lah	-
31	Page 17 6.2.3	How will the other pipelines be reclaimed?	lah	
32	Page 17 6.2.4	As shown on maps it is difficult to locate roads indicated by the "green lines."	lah	
33	Page 17 6.2.6	In Section 6.2.6, the plan says, "Equipment and certain appurtenant components will be disassembled and staged in order to maximize possible salvage values." Please include more definition on what equipment and structural components are disassembled and which components are not.	lah	

110.3 Description of facilities to be left (post mining use)

Comment #	Sheet/Page/ Map/Table #	Comments	Initial s	Review Action
34	Page 18 6.3	As written many of the earthen structures are to remain in place for various reasons, if you have written documentation from other agencies that certain earthen structures have a post mining use, then the earthen structures can remain after reclamation. All other structures will need to be reclaimed and included in the surety bond calculation. Until reclamation commences the structures will be included in surety calculations.	lah	
35	Omission	The Division of Forestry, Fire and State Lands has requested periodic breaches of the dikes 300 feet wide, at a minimum spacing of 1600 feet and a maximum spacing of 1 mile at the cessation of mineral extraction. Include the removal of structural dike components including culverts and gate structures, etc.	lah	Marie de la companya
35	Omission	No description is included about what processing facilities will be left after mining. Is it assumed that all processing facilities will be removed?	lah	

110.5 Revegetation planting program

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
36	Omission	Please include a description of how the process facilities areas will be revegetated.	lah	

R647-4-112 - Variance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
38		The application does not contain a variance section, and the Division assumes no variances are being requested. Please state whether any variances are being requested. If they are, the plan will need to have proper documentation to support the request.	lah	

<u>R647-4-113 - Surety</u>

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
39	General	The Division requests that you use bonding worksheets and formats provided by the Division. When finalized, these forms will be incorporated into the mine plan.	lah	
40	General	Break out surety worksheet as it applies to the BLM	lah	
41	General	The surety is lacking in detail, as the additional requirements are received from the Operator, there will be additional comments.	lah	